

If U. S. makers import their small cars from Japan

Bidwell warns of huge job losses

By Kathleen Hamilton
Financial Editor

TROY, Mich. — About a half-million U. S. jobs will be lost if U. S. makers — led by General Motors — import their small cars from Japan, according to Bennett E. Bidwell, Chrysler Corp. executive vice president.

U. S. makers must keep trying to become competitive with the Japanese auto makers and, in order to do so, some of the rules of the game must be changed, Bidwell told his audience at the Michigan State University Annual Greater Detroit Management Conference here.

Abandoning the auto industry would mean a "lost generation" of permanently unemployed workers, Bidwell said. The problem could last more than a single generation, he said.

"Who are high-tech America's biggest customers? The car companies," he said.

"With a computer in every car and two computers in some. With more robots than any other industry. With more CAD-CAM facilities than anybody. The

three biggest customers of IBM are, in order, GM, Ford and Chrysler."

High-tech America can't sell its computer chips to China or Korea, Bidwell said.

• U. S. truck makers are already competitive with the Japanese; it will take a little longer for cars, he said.

Despite the fact that six of the last 10 years have been recessionary ones, the U. S. auto industry has doubled its average fuel economy, met tough emissions and safety standards, converted to front-drive, designed cars with new sizes and shapes, automated factories, improved quality and kept prices below the general inflation rate, Bidwell said.

He cited a number of services which led the nation's industries in price increases during the last 15 years, reminding his audience that the U. S. is supposed to be most competitive in services.

"Don't put the whole productivity rap on manufacturing,"

he said. "It seems to be raising its prices less than service industries in general."

U. S. car makers need help from Washington to compete in the international market, he said. Taxation and exchange-rate policies give the Japanese an advantage of nearly \$1,000 per car, he said.

If GM decides it cannot compete with what totals a \$2,000-per-car Japanese advantage, Ford Motor Co. and Chrysler will have to follow GM and import small cars.

"Combined, we'd all bring in a million-and-a-half or so," meaning job losses in supplier industries as well as in auto manufacturing.

"We've got a \$600 million small-car program scheduled for 1986 in our Belvidere (Ill.) plant, and it's a helluva car," Bidwell said. "We'd like to build it. It researches like gangbusters."

"But we don't have that kind of money lying around in loose change just to prove a point," Bidwell said.



Footprints on ceiling

A technician at Good-year's proving grounds near San Angelo, Tex., prepares to photograph the tread of an Eagle VR50 high-performance radial. A camera in the under-the-track lab photographs a tire's footprint as it is driven through water.

Michigan enacts law to restrict warranty audits

By Roger Rowand
Engineering Editor

LANSING. — Legislation considerably tipping matters in favor of dealers in dealer-manufacturer relations has become law in Michigan.

It lessens factory rights in matters of warranty work audits and reopening of closed dealerships and includes a feature that's being called dealer severance pay.

While somewhat similar legislation has been passed in about 30 other states, the fact that Michigan is the auto makers' home turf adds a dash of irony to the action here.

The new legislation is in addition to conventional business laws covering selling agreements. Those close to the scene here say its provisions all are favorable to the dealer.

For example, under the new rules, the time allowed for a manufacturer to institute a warranty work audit is reduced to 15 months from 24 months, except in claims known to be fraudulent. With fraud, there is no time limitation.

Too, if a dealer closes up shop, voluntarily or with action by the manufacturer, the manufacturer must pay the dealer up to \$20,000, or a year's rent. The amount will be equal to the dealership's annual fair rental value. That's being called dealer's severance pay.

Another provision of the new legislation calls for a significant change in rules covering reopening of points.

Formerly, if a point reopened within two years the new owner did not need to go through the full drawn-out regulatory procedure required in opening a new point. With the new rules, however, the time period is reduced to one year.

That, in effect, will tend to reduce the number of new dealerships offering competition to existing dealerships, some of those on the scene said.

As elsewhere, Michigan saw many dealerships close during the recession. Now, with better times, it is expected the factories will want to reopen points as quickly as possible.

Another part of the Michigan legislation relates to manufacturers' sales and service promotions. It requires payment of dealer claims within 10 days of their approval by the manufacturer. There previously had been no time requirement.

Seattle may get new stricter emission tests

SEATTLE. — New and stricter motor-vehicle emission tests are being proposed by Ron Holcomb, Washington Department of Ecology.

The new standards, if adopted by the department, would become effective next year and, according to Holcomb, "nearly 25 percent of the vehicles operated in the Seattle area would fail to meet the new requirements."

Vehicle emission testing began in Seattle in January, 1982.

"The major change," Holcomb said, "would be a designation of parts of Spokane as being out of compliance with U. S. clean air standards. In addition, we will tighten the standards for the Seattle area to get the greatest possible reduction of pollution."

THE CANADIAN AUTOMOTIVE MARKET

Sales Units (000)	1982	1981	1980	1979	1978	1977
CANADIAN MARKET						
General Motors	279	475	554	590	560	553
Ford (Excl. Overseas)	149	212	240	346	341	340
Chrysler	127	132	144	201	224	253
American Motors	40	41	35	28	28	38
Total Domestic	595	860	973	1,265	1,153	1,184
Toyota	67	71	50	20	30	39
Honda	56	63	47	33	45	51
Nissan	46	45	32	21	28	32
Mazda	23	34	18	8	7	10
Subaru	7	9	6	3	3	1
Total Japanese	199	222	153	85	113	133
Percent—Japanese to Total	25%	21%	14%	6%	9%	10%
EXPORT MARKETS						
General Motors	533	540	518	482	556	496
Ford	323	268	321	377	505	481
Chrysler	225	131	100	151	217	284
American Motors	43	37	32	34	22	50
Total	1,124	984	971	1,044	1,302	1,311
SALES REVENUE \$(Millions)						
General Motors	\$ 9,570	\$10,416	\$ 9,451	\$ 9,410	\$ 7,721	\$ 6,115
Ford (Excl. Overseas)	4,847	4,528	4,418	5,320	5,292	4,468
Chrysler	3,628	2,452	1,993	2,554	2,874	3,119
American Motors	543	515	471	522	321	254
Total Domestic	\$18,588	\$17,911	\$16,333	\$17,903	\$16,208	\$13,956
Toyota (3/31)	\$ 601	\$ 407	\$ 196	N.A.		
Honda	604	535	378	237		
Nissan (3/31)	407	303	167	144		
Mazda	202	N.A.	N.A.	N.A.		
Subaru	N.A.	75	42	14		
Total Foreign	\$ 1,814	\$ 1,320	\$ 781	\$ 395	N.A.	N.A.
NET PROFIT (Loss)						
AFTER TAX \$(Millions)						
General Motors	\$(72)	\$(10)	\$ 55	\$ 247	\$ 203	\$ 181
Ford (Excl. Overseas)	(174)	(214)	(86)	(12)	13	49
Chrysler	17	(55)	(195)	(89)	(31)	10
American Motors	(21)	(4)	(27)	20	(1)	(4)
Total Domestic	\$(250)	\$(283)	\$(253)	\$166	\$184	\$236
Toyota	\$ 9	\$ 14	\$ 2	N.A.		
Honda	26	14	12	2		
Nissan	6	18	4	(7)		
Mazda	N.A.	N.A.	N.A.	N.A.		
Subaru	N.A.	2	1	—		
Total Foreign	\$ 41	\$ 48	\$ 19	\$ (5)		
TOTAL ASSETS \$(Millions)						
General Motors	\$ 2,752	\$ 3,431	\$ 2,662	\$ 2,223	\$ 1,825	N.A.
Ford (Excl. Overseas)	952	1,097	1,163	1,331	1,214	1,193

	1982	1981	1980	1979	1978	1977
Chrysler	680	760	646	821	843	805
American Motors	118	86	59	68	41	44
Total Domestic	\$ 4,502	\$ 5,374	\$ 4,530	\$ 4,443	\$ 3,723	\$ 2,042
Toyota (3/31)	\$ 119	\$ 148	\$ 72	N.A.		
Honda	170	163	108	88		
Nissan (3/31)	137	70	53	90		
Mazda	42	N.A.	N.A.	N.A.		
Subaru	N.A.	10	10	4		
Total Foreign	\$ 468	\$ 391	\$ 243	\$ 182		
SHAREHOLDERS' EQUITY \$(Millions)						
General Motors	\$ 604	\$ 675	\$ 686	\$ 831	\$ 744	N.A.
Ford (Excl. Overseas)	242	331	461	541	580	614
Chrysler	(36)	(53)	2	196	380	324
American Motors	35	26	22	30	11	12
Total Domestic	\$ 1,045	\$ 1,179	\$ 1,371	\$ 1,553	\$ 1,715	\$ 950
Toyota	\$ 35	\$ 27	\$ 13	N.A.		
Honda	69	44	30	18		
Nissan	36	32	14	8		
Mazda	N.A.	N.A.	N.A.	N.A.		
Subaru	N.A.	4	2	—		
Total Foreign	\$ 140	\$ 107	\$ 59	\$ 26		
CAPITAL EXPENDITURES \$(Millions)						
General Motors	\$ 324	\$ 1,065	\$ 760	\$ 319	\$ 161	\$ 300
Ford (Incl. Overseas)	230	208	330	214	202	116
Chrysler	100	76	64	46	70	60
American Motors	11	10	15	7	12	9
Total Domestic	\$ 665	\$ 1,359	\$ 1,169	\$ 586	\$ 445	\$ 530
Nissan	1	1	—	—	—	—
Chrysler	11.0	10.0	10.3	11.8	13.7	15.3
Toyota	3	—	—	—	—	—
Honda	5	1	—	—	—	—
Nissan	1	1	—	—	—	—
Mazda	N.A.	N.A.	N.A.	N.A.	—	—
Subaru	N.A.	N.A.	—	—	—	—
Total Foreign	\$ 9	\$ 2	—	—	—	—
AVERAGE EMPLOYMENT (000)						
General Motors	36.5	43.1	42.6	42.3	41.4	39.7
Ford	12.9	12.4	12.7	16.2	18.7	17.9
Chrysler	11.0	10.0	10.3	11.8	13.7	15.3
American Motors	2.9	1.9	1.3	1.4	1.4	1.7
Total Domestic	63.3	67.4	66.9	71.7	75.2	74.6
Toyota	.3	.3	N.A.	N.A.	N.A.	N.A.
Honda	.3	N.A.	N.A.	N.A.	N.A.	N.A.
Nissan	.2	.2	.2	.2	.2	.2
Mazda	.1	N.A.	N.A.	N.A.	N.A.	N.A.
Subaru	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total Foreign	.9	.5	.2			

Source: Chrysler Canada, Ltd.

August total is 246,080

Import registrations up; market share drops

By Jenny L. King
Staff Writer

Registrations of new imported cars were up 14.84 percent in numbers but fell 2.34 percentage points in market penetration during August compared with 1982, as domestic registrations outpaced them in the early months of what seems to be a real recovery from the four-year recession.

According to figures compiled by R. L. Polk & Co., import registrations this August climbed to 246,080 compared with 214,290 in 1982, an increase of 14.84 percent and almost 32,000 units. Import market penetration fell to 31.82 percent from the record 34.16 percent set a year ago.

Gains by a few scattered individual makes were sandwiched between shrinking shares for the major importers. For example, Toyota was down 0.95 percentage points, Nissan was off 0.16 percentage points, Honda was down 1.18 percentage points, Mazda was off 0.92 percentage points and Volkswagen was down 1.11 percentage points.

Renault Alliance, counted as an import by Polk, earned 3.42 percent of the August import market in its first year on sale in this country. Subaru gained 0.09 percentage points. Volvo was up 0.07 percentage points and Mercedes was up 0.07 percentage points.

NHTSA cancels wheel survey for lack of bids

WASHINGTON.—NHTSA has canceled a planned "wheel experience survey" in which it hoped to obtain information on problems with the structural integrity and other features of vehicular wheels.

The agency sought a contractor to get information directly from field reports of failures of all types of wheels, including original equipment and aftermarket, foreign and domestic, plain and custom.

According to an agency spokeswoman, however, NHTSA received only one bid on the contract, and that bid was unsatisfactory.

The proposal has been relegated back to its originator, Jonathan White, of the agency's Enforcement Division. It is not known whether NHTSA will solicit bids again at a later date.

Ten imports combined to represent 86.58 percent of the market this August, down from the top 10 taking 89.42 percent in 1982.

Year-to-date market penetration through August was unchanged from the preceding year: 29.75 percent. In straight numbers, registrations were up 15.66 percent for the eight months, to 1,731,826 from 1,497,322.

Toyota dropped 2.24 percentage points, Honda (which includes imported and U.S.-built cars) was down 1.56 percentage points, Mazda was off 0.21 percentage points, Subaru was down 0.39 percentage points and VW dropped 1.25 percentage points.

Nissan climbed 0.34 percentage points, Volvo was up 0.17 percentage points, Mercedes was up 0.08 percentage points and BMW was off 0.01 percentage points. Renault Alliance moved into the top 10 with 4.93 percent of the market and taking seventh place in the rankings. Audi was bumped from tenth place into the others category.

Ten imports took 87.92 percent of the year-to-date import market, down from 90.18 percent in 1982.

In an August-to-August comparison, Japanese penetration of the U.S. market dropped to 73.97 percent this year from 79.13 percent in 1982. West German-built cars were up to 10.18 percent from 9.27 percent, Swedish products had 4.47 percent this year compared with 4.23 percent and U.S. cars went to 8.42 percent from 4.12 percent.

• Following are totals by country of manufacture:

	August, 1983	August, 1982
Japan	182,016	169,566
West Germany	25,056	19,870
United States	20,715	8,832
Sweden	11,007	9,064
France	4,982	4,626
Great Britain	1,434	914
Italy	731	1,146
Ireland	139	272
TOTAL	246,080	214,290

For the first eight months of 1983, Japanese imports claimed 73.36 percent of the market, down from 78.05 percent. German cars had 9.75 percent, down from 9.81 percent. The U.S. climbed to 9.30 percent from 4.34 percent.

	8 mos., 1983	8 mos., 1982
Japan	1,270,404	1,167,709
West Germany	168,772	146,829

United States	160,990	64,988
Sweden	81,041	63,940
France	32,923	33,198
Great Britain	10,225	6,221
Italy	6,863	11,159
Ireland	608	2,278
TOTAL	1,731,826	1,497,322

Registrations of new imported pickup trucks leaped 38.89 percent in August, to 51,907 from 37,429. The major makers and results included:

	August, 1983	August, 1982
Toyota	19,042	13,993
Nissan	15,725	8,291
Mazda	6,797	3,912
Dodge Ram 50	3,440	.....
Ford Courier .....	.....	2,428
Others	6,903	8,805
TOTAL	51,907	37,429

Eight months truck registrations showed 1983 12.94 percent ahead of 1982: 310,345 vs. 274,789.

	8 mos., 1983	8 mos., 1982
Toyota	109,037	91,111
Nissan	84,178	60,306
Mazda	43,269	23,760
Dodge Ram 50	18,797	.....
Ford Courier .....	.....	21,369
Others	55,064	78,243
TOTAL	310,345	274,789

High luxury series also join '84 lineup

Subaru adds 4WD turbo models

Subaru has added a turbocharged four-wheel-drive hardtop, a four-wheel-drive sedan and a High Luxury series to its 1984 lineup.

The Japanese maker now offers four-wheel-drive on every body style.

The GL Hardtop joins the GL Station Wagon and GL BRAT to become the third Subaru offered with Turbo-Traction, a combination of Subaru's On-Demand 4-Wheel Drive system (with automatic transmission and lock-up torque converter)



25-year dealer

John (Red) Elson, right, Elson Ford, Inc., Sidney, O., receives a 25-year plaque from R. E. Jones, Ford Division Cincinnati District sales manager.



New officers for Detroit dealers

New officers of the Detroit Auto Dealers Assn. are, from left: Robert Sellers, Bob Sellers Pontiac-GMC, Inc., Farmington, treasurer; Lou LaRiche, Lou LaRiche Chevrolet, Inc., Plymouth, vice president; Robert Brent, Warren Chrysler-Plymouth, Inc., Warren, president; David Fischer, Suburban Motors Co., Inc., Troy, secretary, and Daniel Hayes, executive vice president.

and the company's new fuel-injected turbocharged 1.8-liter engine.

The horizontally-opposed water-cooled powerplant produces 95 horsepower and 123 pounds-feet of torque. The normally aspirated 1.8-liter engine yields 73 horsepower and 94 pounds-feet of torque.

The Turbo-Traction hardtop model offers air conditioning, power brakes and steering, tilt steering wheel, AM/FM four-speaker radio and an adjustable suspension system.

The new four-wheel-drive sedan includes automatic transmission with lock-up torque converter, as well as increased standard equipment.

Subaru's new High Luxury models are offered in the two-door hardtop and the four-door sedan body styles.

Those front-wheel-drive models are offered with choice of metallic silver, metallic dark gray or "extra" black exterior colors with blacked-out exterior trim. A velour-gray cloth is used inside. Four-window versions have high-back rear seats. The rear bench seat has a folding center armrest.

Standard High Luxury includes air-conditioning, power windows, power mirrors, power steering, cruise control, sunroof and a digital dashboard with a trip computer. High Luxury

models also have an electronic radio with seek and scan functions, coupled with six speakers.

The front-wheel-drive line — two-door, four-door, hatchback, and wagons in DL and upscale GL trim — has received minor improvements, such as an upgraded sound system in DLs and a cargo-area light on GL hatchbacks.

New gear ratios and torque-converter stall speeds are used on automatic transmission vehicles and gear ratios have been revised on one manual transmission model.

3 named to posts at Saginaw Steering

SAGINAW. — Homi K. Patel has been named manufacturing manager of Saginaw Steering Gear Division plants 4, 5, 6 and 7. He replaces Thomas C. Angers, who now is director of manufacturing operations for Allison Gas Turbine Operations, Indianapolis.

Patel formerly was manager of the Delco Products plant in Rochester, N.Y. In other Saginaw Steering changes, John W. Skelley, formerly assistant sales manager, was named manager of manufacturing engineering, and John S. Stiles was named sales manager. Stiles will continue to be responsible for international and aftermarket sales.



Subaru adds 4WD sedan for '84

With the addition of this new four-wheel drive four-door sedan, Subaru now offers all-wheel-drive on each of its body styles. Subaru has also added a new turbocharged four-wheel-drive hardtop to its '84 line.

IMPORT REGISTRATION SHARES IN U.S.

	Regis., August, 1983	Percent Share of Market	Regis., August, 1982	Percent Share of Market	Pct. Pt. Change '83 vs. '82
Toyota	55,378	22.51	50,271	23.46	- 0.95
Nissan	49,841	20.25	43,739	20.41	- 0.16
Honda	36,301	14.75	34,126	15.93	- 1.18
Mazda	15,156	6.16	15,181	7.08	- 0.92
Subaru	14,530	5.91	12,465	5.82	+ 0.09
VW	12,874	5.23	13,590	6.34	- 1.11
Volvo	8,419	3.42	7,173	3.35	+ 0.07
Alliance	8,063	3.28	.....	.....	.....
Mercedes	6,778	2.75	5,312	2.48	+ 0.27
BMW	5,700	2.32	.....	.....	.....
Chrysler .....	.....	.....	4,930	2.30	.....
Colt .....	.....	.....	4,829	2.25	.....
Others	33,035	13.42	22,674	10.58	+ 2.84
TOTAL	246,080		214,290		

Share of U.S. Total... 31.82 34.16 - 2.34
Registrations for Oklahoma not available.

	Regis., 8 Mos., 1983	Percent Share of Market	Regis., 8 Mos., 1982	Percent Share of Market	Pct. Pt. Change '83 vs. '82
Toyota	372,278	21.50	355,472	23.74	- 2.24
Nissan	354,184	20.45	301,053	20.11	+ 0.34
Honda	258,355	14.92	246,780	16.48	- 1.56
Mazda	114,309	6.60	102,005	6.81	- 0.21
Subaru	97,728	5.64	90,235	6.03	- 0.39
VW	92,665	5.35	98,771	6.60	- 1.25
Alliance	85,363	4.93	.....	.....	.....
Volvo	82,961	4.83	51,877	3.46	+ 0.17
Mercedes	47,666	2.75	42,401	2.83	- 0.08
BMW	37,153	2.15	32,284	2.16	- 0.01
Audi .....	.....	.....	29,373	1.96	.....
Others	209,164	12.08	147,071	9.82	+ 2.26
TOTAL	1,731,826		1,497,322		

Share of U.S. Total... 29.75 29.75

Beefing up backshop merchandising

Mazda manual helps dealer service

By Matt DeLorenzo
Los Angeles Reporter

LOS ANGELES. — While the value of a strong parts and service operation to a dealer's overall profit picture is well known, the tools needed to build up that area are harder to define.

One tool that has been used for years by dealers in the salesroom but has yet to make its way to the back of the shop is merchandising.

Dealers can be considered masters of merchandising new and used cars, but when it comes to applying those skills to the service area, many times they fall short of the mark.

It isn't necessarily the fault of

the service or parts manager — their primary function is to serve the customer, not try to sell them, as it is on the showroom floor. However, there are a number of techniques used to sell cars and to keep people interested and coming back to buy their cars at a particular dealer that can be used with similar results in the parts and service arena.

In order to help dealers apply these techniques in this area, Mazda Motors of America (Central) has developed a merchandising manual to help dealership personnel develop specific programs to boost sales in parts and service.

The manual is part of a pro-

gram called Mazda Full Circle Service. The idea is to get Mazda owners to depend on their dealers to provide parts, service, accessories and their next car.

According to the manual, "effective merchandising can reinforce in the customer's mind the image of Mazda's dependability. It can help bring new and old customers back again and again. It can result in increased parts or accessory orders and more profitable maintenance and repair work."

The manual is also designed to give dealers ideas on how to build traffic by attracting new customers (not necessarily Mazda owners) for tuneups; retain Mazda owners; convert customers from buying at the competition, and encourage add-on and impulse sales.

The manual is divided into six sections, each dealing with a specific aspect of merchandising. One of the first sections deals with the selling environment.

It covers basic day-to-day merchandising at the point-of-sale for both parts and service departments. It gives tips on signage, basic sales procedures and sales-building techniques.

It also explains how to set up a self-service section in the parts department and offers guidelines on merchandising to insurance adjusters in the service department.

Another section deals with merchandising techniques, offering suggestions on sales-building special offers to customers as well as display and merchandising materials available from Mazda.

The section on advertising shows how dealers can use that medium to build traffic. It also explains how to prepare an ad budget, design ads, deal with advertising agencies and details the importance of direct-mail programs.

There is also a section on merchandising to the wholesale trade. The manual suggests that dealers get involved with selling parts to local body shops, independent repair shops and new and used car dealers. The section has a number of specific ideas for special offers and special services to wholesale customers including the

need for a fulltime person to work commercial accounts.

Another section deals with incentives for extra performance from service and parts department personnel. The last section deals with the economics of merchandising. It lays out procedures and formulas for planning merchandising, promotion and advertising as well as setting sales objectives and goals.

Tom Diebert, parts manager for Tom Scott Mazda, Nampa, Id., has used a number of ideas in the manual.

"It's a good help mate," he said. "I've revamped the display area and I'm running weekly specials in conjunction with the service department." Diebert said he is also conducting a direct mail program that has proven quite successful.

"We're in the process of redoing the showroom and we'll be getting more space when that happens," Diebert said. "We'll go to a self-service area then."

"It's a good tool," Diebert said of the manual. "It's not something you leave in the file cabinet. You take it out and skim through it now and then."

Ray Jacobs, service manager at Martin Mazda, Woodland Hills, Calif., agrees. "I was happy to see that it covers the whole spectrum including parts. It teaches basic things like telephone techniques and face-to-face selling — we can use the manual both as a source of ideas and as a training tool for counter personnel."

Jacobs said his dealership has tried a number of ideas found in the manual even before they got the book with varying degrees of success. One idea, coupon specials, didn't work

very well.

"We were considering doing that before we got the manual in," he said. "We had a very poor return."

Jacobs said part of the problem may have been the mailing list they were provided. It wasn't updated and consequently, many of the cars had been sold to other parties and many of the people who did come in were driving older vehicles. Part of the goal of the specials was to get recent buyers back in to build dealer loyalty.

One idea that has worked out very well is the development of a wholesale parts trade.

"We agree with the manual on that one," Jacobs said.

"Ninety percent of the wholesale parts are handled by the parts manager. We had the manager deliver some parts personally to new accounts so they know who he is. Our wholesale parts business is up 18 to 23 percent."

Jim Lackey, parts manager at Haus of Mazda, Wichita Falls, Kan., also points to the wholesale parts trade as one of the better ideas in the book.

"It has helped my wholesale business quite a bit," he said.

"I've hired another person and my monthly sales have gone from \$30,000 to \$44,000 to \$45,000 a month. I do some out of town parts business, so I'm going to advertise out of town."

Lackey said his dealership is a dual and notes that the book offers some good general ideas that can be adapted to the other franchises.

"You may have thought about these ideas, but you never thought about them to the depth that they break it down. I really wasn't after the (wholesale) trade, but once they pointed it out, it worked out well."

"Actually, there is nothing new in the manual," Doug Wheeler, parts manager at Flannagan's Mazda, Missoula, Mont., said. "It reinforces what you've learned. It's good to go back through it from time to time. After the daily work routine, you get blasé."

Wheeler feels that the whole concept of Mazda Full Circle Service is important. "The logo is going to become a strong selling point for us," he said. "We're developing more loyal customers."

Chevrolet tops \$2 million in scholarship gifts

WARREN, Mich.—The Chevrolet Scholarship Program has passed the \$2 million mark in donations to college and university scholarship funds at televised football and basketball games.

The program, which began in 1971, currently has the ABC, CBS and TBS television networks chose the most valuable player of each team in the networks' televised National Collegiate Athletic Association football games.

Chevrolet then honors these players by contributing \$1,000 to their school's general scholarship fund. In 1981, Chevrolet broadened the program to include NCAA basketball.

Chevrolet estimates it will award more than 230 scholarships in football alone this season for the highest single-season contribution level in the program's history.

The networks also choose a Coach Of The Year in each of the NCAA's four divisions, and Chevrolet contributes \$2,500 in scholarship money to the general scholarship fund of each coach's school.

Riviera appoints Dorn to sales post

HILLSBORO, Ore. — Riviera Motors, Inc., has appointed Syd Dorn vice president and general sales manager of the wholesale division. He formerly was Eastern zone manager for Peugeot.

Riviera Motors is the Volkswagen distributor for Oregon, Washington, Idaho, Montana and Alaska.

TOP CARS

U.S. registrations for the first eight months of 1983. Registrations not available for Oklahoma, delayed for New Mexico.

1983 Position	Make	1982 Position
1— 857,203	Chevrolet	801,915— 1
2— 660,966	Ford	591,989— 2
3— 624,243	Oldsmobile	493,395— 3
4— 530,742	Buick	449,940— 4
5— 372,278	Toyota	355,472— 5
6— 354,184	Nissan	301,053— 6
7— 331,045	Pontiac	300,990— 7
8— 258,355	Honda	246,780— 8
9— 252,260	Mercury	208,484— 9
10— 205,313	Dodge	161,547— 11
11— 184,737	Cadillac	146,702— 12
12— 180,978	Chrysler	164,735— 10
13— 164,635	Plymouth	105,827— 13
14— 114,309	Mazda	102,005— 14
15— 97,728	Subaru	90,235— 16
16— 92,665	Volkswagen	98,771— 15
17— 85,363	Alliance	.....
18— 62,981	Volvo	51,887— 18
19— 59,988	Lincoln	50,907— 19
20— 47,686	Mercedes	42,401— 20
21— 37,153	BMW	32,284— 21
22— 36,818	AMC	56,218— 17
	Audi	29,373— 22
	Other	.....
209,164	Imports	147,071— ..
481	Misc. Dom.	1,825

5,821,235 TOTAL 5,031,204

Automotive News analysis of new-car registrations based on R. L. Polk & Co. statistical report. Copyright, 1983, Automotive News

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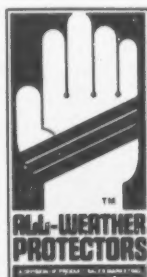
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MARKET SHARES

Make	1983 Market Share	1982 Market Share	Pct. Change '83 vs. '82
Chevrolet	14.73	15.94	-1.21
Ford	11.36	11.77	-0.41
Oldsmobile	10.72	9.81	+0.91
Buick	9.12	8.94	+0.18
Toyota	6.40	7.07	-0.67
Nissan	6.08	5.98	+0.10
Pontiac	5.69	5.97	-0.28
Honda	4.44	4.91	-0.47
Mercury	4.33	4.14	+0.19
Dodge	3.52	3.21	+0.31
Cadillac	3.17	2.92	+0.25
Chrysler	3.11	3.28	-0.17
Plymouth	2.83	2.10	+0.73
Mazda	1.96	2.03	-0.07
Subaru	1.68	1.79	-0.09
Volkswagen	1.59	1.96	-0.37
Alliance	1.47	.....	.....
Volvo	1.08	1.03	+0.05
Lincoln	1.03	1.01	+0.02
Mercedes	0.82	0.84	-0.02
BMW	0.64	0.64	.....
AMC	0.63	1.12	-0.49
Audi	.....	0.58	.....
Other Imports	3.59	2.92	+0.67
Misc. Dom.	0.01	0.01	.....

TOTAL 5,821,235 5,031,804

Based on new-car registration figures from R. L. Polk & Co. Registrations not available for Oklahoma, delayed for New Mexico.

Idea cars seize spotlight in Tokyo

Japanese polish high-tech image

Continued from Page 60

(Cd) of 0.22, says Toyo Kogyo.

Under the hood is a 16-valve, four-cylinder, 1.3-liter engine rated at 100 HP at 6,800 RPM. To improve low-speed running, there is variable valve timing, and also dual induction. In the dual induction system, the area of the port is reduced at low speeds to speed up gas flow — a similar system, developed by Yamaha and Toyota is already in use on Toyota's four-valve-per-cylinder engines.

• Toyota made the biggest splash with concept cars — there was the advanced FX-1, the TAC-3 leisure vehicle, and the SV-3 mid-engined coupe which is in fact a prototype of a car due to go into production next year.

The FX-1 is a long, low two-seater coupe, clearly inspired by Lotus's collaboration with Lotus, in that it has a backbone chassis and wishbone suspension front and rear, as pioneered by Lotus.

A smooth wedge shape, the FX-1 has a sloping nose with "slit beam" headlamps which are very shallow, and an outlet from the radiator in the hood — another idea that was pioneered by Lotus. The bumpers are made in RRIM plastics, and the glass is all flush fitting, including the long fastback panel, which terminates at the rather high tail. So shallow is the angle of the fastback, that rear visibility would be a problem. Nevertheless, the Cd is low at 0.25.

To ease access, the doors not only hinge, but also swing outward on arms. Under the hood, there is Toyota's 24-valve, two-liter, six-cylinder engine specially modified. First, it has

twin turbochargers to improve low-speed response, and to boost the power output to around 200 HP. Then, it is designed to run on either three or six cylinders, the system being similar to that developed by BMW. There are also camshafts with variable valve timing to improve low-speed performance.

Futuristic hydro-pneumatic suspension with self-leveling is also adopted, as is a four wheel anti-skid system. There are new materials, in the shape of ceramic pistons in the brake calipers, ceramics to insulate the exhaust, a steel-plastics-steel sandwich hood and fiber-reinforced metal connecting rods in the engine.

• Not surprisingly, there is a combination LCD instrument panel, with a CRT to give information on any problems in the car, or to indicate which mode is operating — for example, whether the engine is on three or six cylinders. Such instrument panels were to be found in displays on many stands, with Mitsubishi and Honda showing complex navigation systems in which maps could be called up from a computer to be shown on a CRT.

Toyota was showing a number of modified autos, such as a Hi-Lux leisure vehicle, but there was also a special show vehicle in the form of TAC-3, an off-road fun car, with three seats — a centrally mounted driver's seat and two seats behind. Based on the running gear of the Tercel 4WD, the TAC-3 is an open car aimed at rough road use, especially in tropical countries.

More exciting, though, is the SV-3, the mid-engined coupe Toyota will start to produce next year. The engine is mount-

ed transversely behind the driver and passengers, and the car is based on standard mechanical units.

In this case, the engine is Toyota's 1.6-liter, 16-valve, 130-HP unit from the Corolla coupe, mated to a front-wheel-drive transaxle. Suspension is struts all around, and the body has squarer, more angular lines than the Fiero, with concealed headlamps.

• So what was Nissan's answer? It produced the NX-21, intended to show the form of the next century. Thus, it is powered by a small ceramic gas turbine developing 100 HP — at present, the engine is but a rock-up — mounted between the rear wheels.

Evidently styled in Nissan's California studio, the NX-21 is a low four-seater coupe, with a curved sloping nose and a high tail. It has a large glass area, and headlamps that slope back at a very sharp angle. The Cd is quoted as 0.25.

With an overall length of 178 inches, the NX-21 rides on a very long 117.5-inch wheelbase, and is only 50 inches high. It is 70.5 inches wide. Unusually, there are huge gull-wing doors, while there is a CRT in the instrumentation.

Among the interesting prototype engines was a Toyota two-liter, four-cylinder, 16-valve unit, which might go into a front-drive sedan, and an Isuzu 1.8-liter turbocharged diesel with a number of ceramic components — including piston crowns, cylinder liners and cylinder roof, combustion chamber, valves and turbine rotors. Mitsubishi was also showing two turbochargers with ceramic turbine rotors.

Meanwhile, Mitsubishi was showing its new Sirius Dash engine, which has three valves per cylinder. There are two inlets, one operated all the time, and one operated at over 2,500 RPM only. The engine is turbocharged to develop 200 HP, but with this three-valve system, it is claimed that good performance is obtained at low speeds. This engine, boosted to 350 HP, is being used in the Starion four-wheel drive rally car, also on show.

• Apart from the Toyota SV-3, prototypes of cars to be introduced soon by Subaru and Daihatsu were in display. Subaru's J-10 is one more entry in the one-liter class, which is becoming more congested, with the arrival of the Suzuki Cultus, now on sale in Japan.

The J-10 is typical in most respects — 141 inches long, 59 inches wide, and with a 92-inch wheelbase. Styling of the three-door hatchback on show was neat but unoriginal, although the car is different — it has four-wheel drive.

The three-cylinder engine is mounted transversely at the front, and the drive is taken from the rear of the transaxle to the rear wheels. Of course, not all J-10s will be four-wheel drive.

Daihatsu's Rugger is similar to its Taft four-wheel drive off-road vehicle, apart from being about 4 inches longer, and from being completely restyled. It has simple rectangular styling, which is a tremendous advance on the Taft.

Mitsubishi chose the show to

Continued on Page 68, Col. 1



Mini-sized off-roader

Toyota's TAX-3 is a four-wheel-drive, three-seat prototype.



Another turbo

Latest in the line of Japanese turbo cars is this one-liter Daihatsu Charade displayed at the Tokyo Motor Show.



For a rally, really

Also unveiled at the Tokyo Motor Show was Mitsubishi's 350-HP four-wheel-drive Starion for rallies. Its engine has three valves per cylinder.

Saab plans 17-pct. boost in passenger-car production

NYKOPING, Sweden.—Saab-Scania AB will increase its passenger-car production capacity 17.65 percent from its current annual rate of 102,000 to 120,000, beginning in 1985.

The company's board of directors said that it has approved a heavy investment program for the Saab Car Division assembly plants in Trollhattan and Arlov.

Worldwide Saab sales have climbed from 67,400 units in 1980 to an estimated 93,000 in 1983, the company said.

At Saab's main plant in Trollhattan, the capacity of the body shop and the paint shop will be increased from 75,000 to 90,000 units.

The final assembly capacity will be increased at both plants. In Arlov, which receives fully built-up painted body shells

from Trollhattan, the assembly capacity will be raised from 15,000 to 22,000 units.

Together with Saab's Uusikaupunki plant in Finland, Saab's total available capacity will be 120,000 cars. The increased capacity will become available in 1985 and will require the addition of some 300 workers.

Saab-Scania AB also announced that consolidated sales during the first eight months of 1983 amounted to \$1.6 billion, an increase of 9 percent from the same period last year.

During the first eight months of 1983, sales of Saab cars grew 39 percent worldwide, and 48 percent in the U. S., the company said.

Sales of the Scania Division's trucks, buses and industrial engines declined 11 percent.

Norwegian government hikes taxes on new cars 10 pct.

By Richard Feast
European Editor

OSLO. — Passenger-car retailers in Norway are scaling down their year-end expectations following the announcement from the government that car taxes are to be raised.

Earlier expectations of 120,000 units for the year have been revised to around 100,000. The change is going to have serious repercussions for importers and dealers.

The 10 percent hike in car taxes adds an additional 5 percent to retail prices. Car buyers will be paying approximately 60 percent in taxes on a new car, making Norway one of the highest taxed countries in Europe in this respect.

For example, the pre-tax price of a Mercedes-Benz 190—around \$12,000—jumps to \$25,000 with taxes.

The announcement took the industry by surprise because the

Norwegian budget only two days before had made no mention of the increase.

It had raised the tax on gasoline — from the beginning of December it will cost the equivalent of \$2.75 a gallon. These twin events are the cause of the industry's concern.

Next year, revenues from car taxes will be higher than from any other single source. They will be the equivalent of 60 percent of the total revenues from Norway's considerable North Sea oil business.

In the eight months to the end of August, new-car sales in the country were down 3.3 percent at 74,900. The total last year was approximately 115,600.

Ford (15 percent) and General Motors (13.7 percent) were market leaders through the end of August. But the combined Japanese makers had a strong share of nearly 37 percent, led by Mazda with 13 percent.

THE AUTOMOTIVE AFTERMARKET, 1981-1988

Retail Sales in Millions of Current Dollars:			
	1981	1988	
Service receipts, excluding parts	\$ 26,783	\$ 55,740	
Replacement parts, excluding labor	23,460	44,482	
TBA & chemicals	18,479	32,011	
Motor oil for car use	2,802	3,861	
Subtotal: Automotive aftermarket excluding motor fuel	\$ 71,524	\$136,074	
Motor fuel for car use	90,426	197,267	
TOTAL	\$161,950	\$333,341	

Source: Frost & Sullivan, Inc.

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Nov. 3—Minneapolis Northstar Auto Auction, Shakopee, Minn.

Nov. 4—Concord Auto Auction, Acton, Mass., and Floyd Hauhe Auto Auction, Bridge-ton, Mo.

Nov. 8—D-A Auto Auction, New Stanton, Pa.

Nov. 9—Metro Milwaukee Auto Auction, Caledonia, Wis.; Central States Auto Auction, Mason City, Ia.; Kansas City Auto Auction, Kansas City, Mo., and Columbus Fair Auto Auction, Columbus, O.

Nov. 10—Evansville Auto Auction, Evansville, Ind.; Minneapolis Northstar Auto Auction, Shakopee, Minn., and Todd Auto Auction, Telford, Pa.

Nov. 15—High Point Auto Auction, High Point, N.C., and Aptco Auto Auction, Taylor, Mich.

Nov. 16—Central States Auto Auction, Mason City, Ia.; Southern Auto Auction, Warehouse Point, Conn., and Columbus Fair Auto Auction, Columbus, O.

Nov. 17—Minneapolis Northstar Auto Auction, Shakopee, Minn.

Nov. 18—Concord Auto Auction, Acton, Mass., and Floyd Hauhe Auto Auction, Bridge-ton, Mo.

Nov. 22—D-A Auto Auction, New Stanton, Pa., and Minneapolis Northstar Auto Auction, Shakopee, Minn.

Nov. 23—Metro Milwaukee Auto Auction, Caledonia, Wis.; Central States Auto Auction, Mason City, Ia.; Kansas City Auto Auction, Kansas City, Mo.; Columbus Fair Auto Auction, O., and Evansville Auto Auction, Evansville, Ind.

Nov. 29—High Point Auto Auction, High Point, N.C., and Aptco Auto Auction, Taylor, Mich.

Nov. 30—Central States Auto Auction, Mason City, Ia.; Southern Auto Auction, Warehouse Point, Conn., and Columbus Fair Auto Auction, Columbus, O.

Chrysler Corp.

Nov. 1—Hatfield Auto Auction, Hatfield, Pa.; Baltimore Wash-

ington Auto Exchange, Baltimore, Md.; D-A Auto Auction, New Stanton, Pa., and Portland Auto Auction, Portland, Ore.

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Nov. 8—Aptco Auto Auction, Taylor, Mich.; Hatfield Auto Auction, Hatfield, Pa., and Baltimore Washington Auto Exchange, Baltimore, Md.

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Ford Motor Co.

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Nov. 10—Skyline Auto Exchange, Fairfield, N.J.

Nov. 15—South Seattle Auto Auction, Kent, Wash.

Nov. 16—Metro Auto Auction of Kansas City, Lee's Summit, Mo.

Nov. 22—Aptco Auto Auction, Taylor, Mich.

Nov. 30—Concord Auto Auction, Acton, Mass.

Lee Tire & Rubber marks 100th anniversary this year

VALLEY FORGE, Pa. — In 1883, John Elwood Lee began winding bandages and making silk for surgeon's ligatures on his mother's sewing machine.

This year, the firm which sprung from Lee's medical supply activity — now called Lee Tire & Rubber Co. — is observing its 100th anniversary.

With the advent of the automobile, Lee saw the great potential in automobile tire manufacture. He began experimenting with tire production, and in 1910 built a new plant on the edge of Conshohocken (about 20 miles from Philadelphia) to produce JELCO automobile tires. Lee formed Lee Tire & Rubber Co. of Pennsylvania, Inc.

Lee pioneered the practical puncture-proof tire — an item that soon became popular with early motorists because of the hazardous road conditions of the era.

Before 1920, the trade name JELCO was dropped and "Lee of Conshohocken" was substituted. Henry Ford prompted the change because he thought a tire name that suggested jelly might hamper sales.

In 1914, Lee died and the next

year Lee Rubber & Tire Corp. was formed.

In 1923, the company purchased Republic Rubber Co., of Youngstown, O., which produced Lee's line of mechanical rubber goods, industrial hose, belting and other items using rubber and plastic raw materials.

In 1965, Goodyear Tire & Rubber Co. purchased the Lee name and assets and established a wholly owned subsidiary, Lee Tire & Rubber Co.

The parallels between the Lee company today and the one that took root a century ago are few.

Market conditions and other business considerations have taken the firm from a purveyor of medical goods to a one-time producer of a host of domestic molded rubber goods such as door stops to today's line of truck, farm and passenger tires.

Goodyear changes abandoned plant into design center

AKRON.—Goodyear's 5-year, \$125 million transformation of a 67-year-old abandoned tire plant into a development center ended as some 700 engineers and technicians moved into the facility.

The renovated building houses both experimental and race tire production and all tire design and engineering functions.

Goodyear said that in its new facility, engineers can conceive, design and build a tire and then walk to the testing laboratories or an 83-acre test track to get initial confirmation on the design.

"The goal of the Technical Center," said Fred Kovac, vice president of tire technology, "is to create a perfect environment and teamwork atmosphere for the development of tires for every transportation requirement of the future."

Delco Products opens sales office in Tokyo

DAYTON. — Delco Products Division of General Motors has opened a sales office in Tokyo, its first in Japan.

Allan Su, manager of Far East sales and formerly in the division's Detroit office, has been named manager of the new Tokyo office.

Used Car Sales Auction Averages

November to date	\$5,132
Month ago	\$5,331
Year ago	\$4,612

Model breakdown Auction Averages

	NOVEMBER TO DATE	OCTOBER	SEPTEMBER
1983.....	\$ 9,306	\$10,112	\$ 3,980
1982.....	7,193	7,853	7,829
1981.....	5,771	6,114	6,179
1980.....	4,998	5,185	5,193
1979.....	4,253	4,386	4,613
1978.....	3,370	3,316	3,406
1977.....	2,527	2,365	2,523
1976.....	1,726	1,869	1,811
Overall			
Average \$	5,132	\$ 5,241	\$ 5,180

Ford nixes JELCO

When Lee Tire & Rubber Co. first produced tires, around 1911, they were called JELCO tires — for J. Elwood Lee, the company's founder. JELCO was dropped when Henry Ford suggested the jelly-like name did not inspire confidence. This ad appeared April 15, 1912, in Country Life in America.

Import of cars with clean-air certification to be overhauled

EPA reviews gray-market rules

By Geoff Sundstrom
Washington Reporter

WASHINGTON.—Rules governing clean air certification of gray-market cars will be reviewed by the EPA in coming weeks.

The agency is contemplating an overhaul of current gray-market regulations in the face of growing compliance problems.

The agency published proposed regulation changes on the

importation of nonconforming motor vehicles and motor vehicle engines earlier this year. Those regulations and public comments on them will be reviewed by the agency at two workshops.

The first workshop is scheduled for Nov. 29 at EPA headquarters here. The second will be held Dec. 7 at the Holiday Inn Embarcadero in San Diego.

Current law restricts the importation of automobiles and

engines that do not conform to federal emission requirements.

Nonconforming vehicles can be conditionally imported, if a bond is posted with U.S. Customs and the vehicle is then brought into conformity with EPA emission requirements.

This can be done by modifying the vehicle to make it identical to one certified for sale in the U.S., or by successfully testing the car by the Federal Test Procedure at an EPA-approved laboratory.

EPA's proposed rule changes would abolish the modification and testing options, as well as ban the importation or nonconforming vehicles in most cases.

One important exemption would be allowing an individual to import one gray-market vehicle for personal use and not for resale, if the car is more than five model years old. The vehicle would not have to meet federal emission standards.

The agency also proposed clarification of the definition of a racing vehicle and suggested modifying procedures and restrictions applicable to several other exemption categories.

Racing cars may now be imported free of emission restrictions, if they are used only for racing and testing purposes.

Comments in favor of the proposed changes have come primarily from car enthusiasts because the revision would allow the importation of exotic makes not available in the U.S.

But foreign and domestic manufacturers, as well as dealer organizations, have objected to the changes. They cite adverse air quality impacts, loss of sales by U.S. dealers and the inequity of requiring domestic vehicles to meet federal emission requirements while allowing the importation of foreign vehicles that do not.

According to the EPA, the approximate number of nonconforming vehicles imported annually has increased from 1,500 in 1980 to 5,000 in 1982. In 1983, EPA estimates 8,400 gray-market vehicles will be imported.

As gray-market imports have increased, so have questions surrounding their certification under emission standards.

The EPA has reported an increasing number of allegations concerning falsification of test data and on vehicle modifications that are not safe or durable. Violations of various state laws and regulations have also

been reported.

The EPA said that if the allegations are true, lawful gray-market participants will be placed at a competitive disadvantage. The agency said consumers may also be adversely affected if they buy imports that are unsafe or do not pass emission inspections.

Another problem is the increasing sale of nonconforming vehicles imported by "nonresidents." Nonresidents may currently import cars for personal use for up to one year. The vehicle may not be resold. However, the resale prohibition is being increasingly violated, according to the EPA.

The agency is also considering a change in the "small-volume" certification process.

Currently, importers for resale are considered "manufacturers." Manufacturers whose U.S. sales are less than 10,000 units per year may certify their vehicles under the "small-volume" certification procedure.

The EPA has published a series of issues and questions to be addressed by its gray-market workshops. The EPA lists Stanley B. Durkee, of the Investigation/Imports section as contact for the gray-market issue. His telephone number at EPA headquarters is (202) 382-2496.

1984 U. S. MODELS BY MAKE

	4-Door Models	2-Door Models*	Convertibles	4-Door Wagons	1984 Totals	(Final 1983 Totals)
AMERICAN MOTORS-						
RENAULT**	6	7	0	2	15	(16)
AMC Concord	0	0	0	0	0	(3)
AMC Eagle	1	0	0	2	3	(3)
AMC Eagle SX-4	0	0	0	0	0	(2)
AMC Spirit	0	0	0	0	0	(2)
Renault Alliance	3	3	0	0	6	(6)
Renault Encore	2	4	0	0	6	(0)
CHRYSLER CORP.	18	15	4	5	42	(43)
Chrysler Fifth Avenue	1	0	0	0	1	(1)
New Yorker/E Class	2	0	0	0	2	(2)
Executive Sedan/Limousine	2	0	0	0	2	(2)
Cordoba	0	0	0	0	0	(1)
Laser	0	2	0	0	2	(0)
LeBaron	1	1	3	1	6	(6)
Dodge Diplomat	1	0	0	0	1	(2)
Aries	2	2	0	2	6	(6)
Charger	0	3	0	0	3	(3)
Daytona	0	2	0	0	2	(0)
Dodge 400	0	0	0	0	0	(3)
Dodge 600	2	1	1	0	4	(2)
Mirada	0	0	0	0	0	(1)
Omni	2	0	0	0	2	(2)
Imperial	0	0	0	0	0	(1)
Plymouth Gran Fury	1	0	0	0	1	(1)
Horizon	2	0	0	0	2	(2)
Reliant	2	2	0	2	6	(6)
Turismo	0	2	0	0	2	(2)
FORD MOTOR CO.	26	41	3	11	81	(93)
Ford LTD Crown Victoria	1	1	0	2	4	(3)
Escort	4	5	0	3	12	(10)
EXP	0	3	0	0	3	(5)
Fairmont Futura	0	0	0	0	0	(3)
LTD (Int.)	2	0	0	1	3	(3)
Mustang	0	7	3	0	10	(8)
Tempo	3	3	0	0	6	(6)
Thunderbird	0	4	0	0	4	(3)
Lincoln	3	0	0	0	3	(3)
Continental	3	0	0	0	3	(3)
Continental Mark VII/VI	0	4	0	0	4	(7)
Mercury Grand Marquis	2	2	0	1	5	(5)
Capri	0	3	0	0	3	(5)
Cougar	0	3	0	0	3	(2)
LN7	0	0	0	0	0	(4)
Lynx	4	4	0	2	10	(11)
Marquis (Int.)	2	0	0	2	4	(4)
Topaz	2	2	0	0	4	(4)
Zephyr	0	0	0	0	0	(4)
GENERAL MOTORS	53	68	4	19	144	(137)
Buick LeSabre-Electra	4	4	0	1	9	(10)
Century	3	3	0	2	8	(6)
Regal	2	3	0	0	5	(6)
Riviera	0	2	1	0	3	(3)
Skyhawk	2	3	0	2	7	(7)
Skylark	2	3	0	0	5	(5)
Cadillac	4	2	0	0	6	(6)
Cimarron	1	0	0	0	1	(1)
Eldorado	0	1	1	0	2	(1)
Seville	1	0	0	0	1	(1)
Chevrolet Impala-Caprice	2	1	0	1	4	(3)
Camaro	0	3	0	0	3	(3)
Cavalier	2	2	1	2	7	(8)
Celebrity	1	1	0	2	4	(2)
Chevette	1	2	0	0	3	(4)
Citation	1	2	0	0	3	(3)
Corvette	0	1	0	0	1	(1)
Malibu	0	0	0	0	0	(2)
Monte Carlo	0	2	0	0	2	(1)
Oldsmobile 88/9C	4	3	0	1	8	(9)
Cutlass Ciera	2	2	0	1	5	(4)
Cutlass Supreme	2	3	0	0	5	(6)
Firenza	2	2	0	0	4	(6)
Omega	2	2	0	0	4	(4)
Toronado	0	1	0	0	1	(1)
Pontiac Parisienne	2	0	0	1	3	(3)
Bonneville	3	0	0	0	3	(3)
Fiero	0	3	0	0	3	(0)
Firebird	0	3	0	0	3	(3)
Grand Prix	0	3	0	0	3	(3)
Phoenix	2	3	0	0	5	(6)
Pontiac 1000	1	1	0	0	2	(2)
Pontiac 2000 Sunbird	3	5	1	2	11	(9)
Pontiac 6000	3	2	0	2	7	(5)
VOLKSWAGEN**	2	2	0	0	4	(7)
Rabbit	2	2	0	0	4	(7)
1984 TOTALS	105	133	11	37	286	
1983 TOTALS (end of model year)	113	137	9	37		(296)

*Two-door total includes hatchbacks, which some makers list as three-door models.

**Renault and Volkswagen totals include only U.S.-built models.

1984 U. S. MODELS BY MARKET CLASS

	Models 4-Door	2-Door Models*	Convertibles	4-Door Wagons	1984 Totals	(Final 1983 Totals)
SUBCOMPACTS	22	36	0	5	63	(62)
Alliance	3	3	0	0	6	(6)
Charger	0	3	0	0	3	(3)
Chevette	2	2	0	0	4	(4)
Daytona	0	2	0	0	2	(0)
Eagle SX-4	0	0	0	0	0	(2)
Encore	2	4	0	0	6	(0)
Escort	4	5	0	3	12	(10)
EXP	0	3	0	0	3	(5)
Fiero	0	3	0	0	3	(0)
Horizon	2	0	0	0	2	(2)
Laser	0	2	0	0	2	(0)
LN7	0	0	0	0	0	(4)
Lynx	4	4	0	2	10	(11)
Omni	2	0	0	0	2	(2)
Pontiac 1000	1	1	0	0	2	(2)
Rabbit	2	2	0	0	4	(7)
Spirit	0	0	0	0	0	(2)
Turismo	0	2	0	0	2	(2)
COMPACTS	20	38	8	13	79	(88)
Aries	2	2	0	2	6	(6)
Camaro	0	3	0	0	3	(3)
Capri	0	3	0	0	3	(5)
Cavalier	2	2	1	2	7	(8)
Cimarron	1	0	0	0	1	(1)
Dodge 400	0	0	0	0	0	(3)
Fairmont Futura	0	0	0	0	0	(3)
Firebird	0	3	0	0	3	(3)
Firenza	2	2	0	2	6	(6)
LeBaron	1	1	3	1	6	(6)
Mustang	0	7	3	0	10	(8)
Pontiac 2000 Sunbird	3	5	1	2	11	(9)
Reliant	2	2	0	2	6	(6)
Skyhawk	2	3	0	2	7	(7)
Tempo	3	3	0	0	6	(6)
Topaz	2	2	0	0	4	(4)
Zephyr	0	0	0	0	0	(4)
INTERMEDIATES	32	37	1	12	82	(78)
Bonneville	3	0	0	0	3	(3)
Celebrity	1	1	0	2	4	(2)
Century	3	3	0	2	8	(6)
Citation	1	2	0	0	3	(3)
Concord	0	0	0	0	0	(3)
Cougar	0	3	0	0	3	(2)
Cutlass Ciera	2	2	0	1	5	(4)
Cutlass Supreme	2	3	0	0	5	(6)
Dodge 600	2	1	1	0	4	(2)
Eagle	1	0	0	2	3	(3)
Grand Prix	0	3	0	0	3	(3)
LTD	2	0	0	1	3	(3)
Malibu	0	0	0	0	0	(2)
Marquis	2	0	0	2	4	(4)
Monte Carlo	0	2	0	0	2	(2)
New Yorker/E Class	2	0	0	0	2	(1)
Omega	2	2	0	0	4	(4)
Phoenix	2	3	0	0	5	(6)
Pontiac 6000	3	2	0	2	7	(5)
Regal	2	3	0	0	5	(6)
Skylark	2	3	0	0	5	(5)
Thunderbird	0	4	0	0	4	(3)
STANDARD SIZE	13	8	0	6	27	(30)
Buick LeSabre	2	2	0	0	4	(5)
Chevrolet Impala-Caprice	2	1	0	1	4	(3)
Chrysler Cordoba	0	0	0	0	0	(1)
Dodge Diplomat	1	0	0	0	1	(2)
Dodge Mirada	0	0	0	0	0	(1)
Ford LTD Crown Victoria	1	1	0	2	4	(3)
Mercury Grand Marquis	2	2	0	1	5	(5)
Oldsmobile 88	2	2	0	1	5	(6)
Plymouth Gran Fury	1	0	0	0	1	(1)
Pontiac Parisienne	2	0	0	1	3	(3)
LUXURY	18	14	2	1	35	(38)
Buick Electra	2	2	0	1	5	(5)
Cadillac	4	2	0	0	6	(6)
Chrysler Executive	2	0	0	0	2	(2)
Sedan/Limousine	1	0	0	0	1	(1)
Chrysler Fifth Avenue	1	0	0	0	1	(1)
Continental	3	0	0	0	3	(3)
Continental Mark VII	0	4	0	0	4	(7)
Corvette	0	1	0	0	1	(1)
Eldorado	0	1	1	0	2	(1)
Imperial	0	0	0	0	0	(1)
Lincoln	3	0	0	0	3	(3)
Oldsmobile 98	2	1	0	0	3	(3)
Riviera	0	2	1	0	3	(3)
Seville	1	0	0	0	1	(1)
Toronado	0	1	0	0	1	(1)
1984 TOTALS	105	133	11	37	286	
1983 TOTALS (end of model year)	113	137	9	37		(296)

*Two-door total includes hatchbacks, which some makers list as three-door models.

U.S. model total cut by 10 for '84

Continued from Page 1

compacts, 82 intermediates, 27 standard-size cars and 35 luxury cars.

The '83 comparison: 62 subcompacts, 88 compacts, 78 intermediates, 30 standard-size cars and 38 luxury cars.

At this point in the '84 model year, Ford has the most models with 42 and Pontiac is close behind with 40.

Totals for other makes are: Buick, 37; Oldsmobile, 29; Mercury, 29; Chevrolet, 28; Dodge, 18; Chrysler, 13; Renault, 12; Plymouth, 11; Lincoln, 10; Cadillac, 10; Volkswagen, 4, and AMC, 3.

The leaders in the '83 model year were: Ford, 41; Mercury, 39; Buick, 37; Pontiac, 34; Oldsmobile, 30, and Chevrolet, 27.

'Expressive cars' called the key

A new GM strategy detailed by Hoglund

By Jesse Snyder
Crain News Service

LAS VEGAS. — Pontiac is trying to head specialty sports imports off at the marketing pass.

The idea is that Pontiac's specialty offerings will force imports to compete in the lower priced sector rather than taking on Buick with its more expensive (and more profitable) models, according to William E. Hoglund, Pontiac general manager.

Hoglund and several Pontiac execs came riding down the aftermarket trail, hoping to pick up some hired guns at the 20th annual show of the Specialty Equipment Market Assn. (SEMA).

The more aftermarket performance and accessory parts available for Pontiacs, the more desirable those cars are in the showroom, Hoglund figures.

It's a new but well-worn path between aftermarket suppliers and Detroit, one that SEMA Chairman Jim Davis traces to the 1980 show when Direct Connection, Chrysler Corp.'s performance parts subsidiary, came looking for closer ties.

Buick followed in 1981 with its V-6 engine and Ford touted its SVO Mustang (for Special Vehicle Operations) last fall. Chevrolet is already signed up for a major presentation next year.

This year, Chrysler announced a Direct Connection supercharger and an aftermarket-inspired factory performance model of its Omni. Ford and Buick displayed more performance engines.

Pontiac pushed its new two-seater Fiero as the "perfect aftermarket car" because of its easy-to-replace plastic skin, sportiness and price.

• It displayed the 1984 Indianapolis 500 Fiero Pace Car (2,000 visual replicas go on sale in March), a racing Fiero and a 232-HP upgrade of Fiero's stock four-cylinder engine.

The show centerpiece was a Fiero convertible. Hoglund said he's shopping for a "quality coachbuilder" for 2,000 convertibles a year and is willing to share the concept car blueprints.

At a breakfast interview, Hoglund said he sees it as Pontiac's job to stave off the Japanese move into more expensive, higher-priced vehicles "before they move into Buick territory."

On a coffee-shop placemat, Hoglund sketched out a chart of General Motors' marketing plans, a cross-shaped map divided in one direction by price and another by "expressiveness."

Each large-volume division is shifting slightly farther from the center: Chevrolet gets the low-priced, less expensive quadrant; Pontiac low-priced expressive; Buick high-priced expressive; Oldsmobile high-priced, conservative; with Cadillac in the middle but high up the price ladder.

Pontiac's segment is a prime target of Japanese efforts to move off the "econobox" range into greener pastures. To counter, GM approved new "image" products such as the Fiero, the STE version of the intermediate 6000, a turbocharger for the compact 2000 Sunbird and a

change in GM's policy of non-involvement in motorsports.

"That's the reason GM went with those costs," Hoglund said. "We couldn't be on the front lines with a BB gun."

Less costly is involving aftermarket producers for specialized market segments.

"SEMA members can provide performance parts and accessories more quickly and less expensively than we can," Hoglund said. "It also leaves Pontiac free to concentrate on modernizing the rest of its lineup. I see the market becoming increasingly fractionalized and these companies can just move faster than we can."

The aftermarket industry is moving fast in several directions after weathering a shakeout triggered by the recession, said SEMA's Davis. Performance equipment is enjoying the biggest surge, but the van and off-road accessory market is starting to perk again, he said.

Buick, Ford's Motorcraft subsidiary, and several speed-equipment marketers had incremental advances. But Direct Connection is introducing a new supercharger that will boost power 35 percent on Chrysler's standard four-cylinder engine. A supercharger increases air flow to an engine full time, while more common turbochargers do the same thing part time.

DC also markets stock Chrysler turbos as add-ons, but it is developing an intercooler (which cools intake air to boost turbocharger efficiency) for direct sale and dealer installation, said DC President Brian Schram.

A DC-designed package of aftermarket add-ons for the four-door Omni will be adopted as a factory model in 1985, which Chrysler execs privately call the Omni GLH, for Go Like Hell.

The revival in van sales is especially important to aftermarketers because many are customized. Stable interest rates also help van buyers trick out their vehicles as part of the purchase financing, Ravis said.

• New van products include roof racks that swing out and down for loading and another rack that slides backward to make a framework for a canvas-walled extension of the interior for camping.

Off-road vehicles also are regaining popularity. However, parts for the vehicles are increasingly sold through traditional auto parts stores rather than specialty shops, Davis said.

There's a new pop-up rear window for small pickups and collapsible canvas caps for big and small pickups. A new tailgate replacement unfolds into a ramp for loading equipment or cattle into pickups.

Electronic aftermarket products are limited to digital clocks because of high development costs and manufacturers' efforts to integrate such features into specific designs.

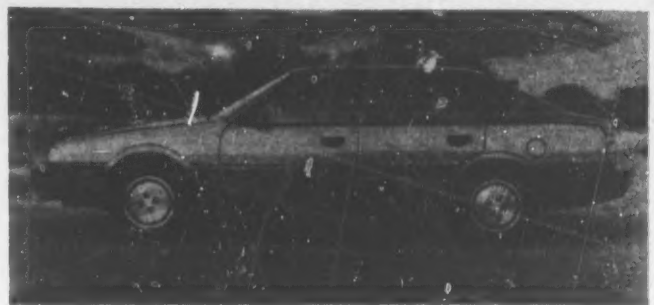
The SEMA show, combined for the first time with Automotive International, the trade group for import-car aftermarket, is an indication of reduced tension between members of the two groups. But that hasn't yet translated into marketing cooperation between the two, Davis said.

NEW-CAR STOCKS

	Nov. 1, 1983	Oct. 1, 1983	Nov. 1, 1982
Alliance	86	77	58
Encore	65	71	...
Eagle	72	63	88
AMERICAN MOTORS	76½	73	80
Horizon	53	68	58
Turismo	51	59	59½
Reliant	56	56	56
Gran Fury	42½	29	74
Plymouth	54	59	58
LeBaron	43	59	71
Cordoba	38	33	71½
E Class	38	43	51
New Yorker E	51	60	...
Fifth Avenue	49	33	68
Laser	68	126	...
Chrysler	48½	54	66
Omni	53	68	65
Charger	69½	69	64
Aries	61	55	60
Dodge 400	54	53	108
Dodge 600	57	64½	77
Diplomat	35	61	55
Daytona	76	20	...
Dodge	59	62	68
CHRYSLER CORP.	54	58	64
Escort	51	60	83
EXP	78	50	164
Mustang	57	77	72
Tempo	67	64	...
LTD	48	51	71
Thunderbird	83	76	42
Crown Victoria	40	39	70
Ford	58	60	74
Lynx	65	82	101
LN7	38½	65	201
Capri	82	103	95
Topaz	66	65	...
Marquis	48	62	51
Cougar XR7	74	56	42
Grand Marquis	31	36	62
Mercury	59	60½	71
Lincoln	26	36	41
Continental	69	63	43
Mark VI	57	51	59
Lincoln	41	40	47
FORD MOTOR CO.	58	58	71
Skyhawk	29	55	124
Skylark	46	72	77
Century	36	60	85
Regal	32½	59	65
LeSabre	29	50	46
Electra	29	66	60
Riviera	36	68	63
Buick	34	60	68
Cimarron	69	98	86
Seville	32	55	45
Cadillac	34	41	37
Eldorado	32	56	41
Cadillac	35	50	41
Chevette	78½	73	91
Cavalier	46	46½	91
Citation	83	98	101
Camaro	46	59	95
Celebrity	50½	49	101
Malibu	26	25	60
Monte Carlo	63	52	73
Chevrolet	51	56	88
Corvette	34	28	160
Chevrolet	54	57	86
Firenza	53	64	113
Omega	51	68	74
Ciera	38	56	64
Cutlass	28½	41	42
Olds 88	23	30	37
Olds 98	24½	39	52
Toronado	41	62	54
Oldsmobile	31	45	50½
1000	81	66	139
Fiero	17	50	...
Sunbird	73	79	115
Phoenix	88	98	122
Firebird	58	60	134
Bonneville	55½	52	48
6000	45	54	111
Grand Prix	54	57	58
Parisienne	56	62	97
Pontiac	53½	53	69
GENERAL MOTORS	42	54	...
Volkswagen	68	82	72
Honda	22	12	...
TOTAL	48	55	69

L-M deal opens

ST. PAUL.—Mark and Harvey Wilkins have become Lincoln-Mercury co-dealers at Wilkins Lincoln-Mercury, Inc., on the site of a previously closed dealership.



Spacious 626 from Mazda

By removing its rear cargo cover, but not touching the rear seats, the Mazda 626 touring sedan provides 21 cubic feet of luggage space. The front-drive 626 lineup—touring sedan, coupe and four-door sedan—is essentially unchanged for 1984.

Mazda simplifies GLC line, fine-tunes RX-7 for 1984

Mazda has fine-tuned its rotary-powered RX-7 sports car and simplified its front-drive GLC subcompact line for 1984.

A new four-speed automatic transmission with lock-up torque converter replaces a three-speed automatic as the optional gearbox in 1984 GS and GSL versions of the RX-7. Variable-assist power steering has also been added to the GSL's option list.

Numerous additional improvements have been made to the RX-7. The instrument panel has been redesigned, the ventilation system has been refined and augmented by use of a four-speed fan, the wiper/washer system has been revised and a slit has been added to the air dam to improve front disk-brake cooling.

Other RX-7 changes: New shifter lever and steering wheel, new circular dial controls (replacing pull and slide levers)

and illuminated and lockable storage bins behind the bucket seats.

• To simplify the GLC lineup, Mazda dropped the rear-drive station wagon and the basic, Custom, Custom L and Sport trim levels of the front-drive model.

The '84 GLC line consists of the front-drive hatchback and sedan body styles, the hatchback offered in standard, Deluxe and Luxury trim and the sedan offered in Deluxe and Luxury trim only.

Mazda's 626 line, new last year, remains essentially unchanged for 1984.

The Sport version of Mazda's B-2000 truck has a new exterior scheme using two-tone paint, accent stripes and wide body-side moldings. Also new is the choice of either high-back bucket seats or a bench seat with fixed head restraints.

Stockpile of U. S. cars whittled down to 48 days

Continued from Page 1

ply figures by market segment were: Subcompact, 65; compact, 59; intermediate, 56; standard, 44, and luxury, 51.

The Nov. 1 domestic inventory was divided this way among market segments: Subcompact, 19.65 percent; compact, 25.08 percent; intermediate, 35.58 percent; standard, 9.04 percent, and luxury, 10.65 percent.

A month earlier, the inventory was divided as follows: Subcompact, 18.61 percent; compact, 22.66 percent; intermediate, 38.52 percent; standard, 9.37 percent, and luxury, 10.84 percent.

The Nov. 1 days-supply figures by market class were:

Subcompact — Fiero, 17; Accord, 22; LN7, 38½; Escort, 51; Turismo, 51; Horizon, 53; Omni, 53; Lynx, 65; Encore, 65; Rabbit, 68; Laser, 68; Charger, 69½; Daytona, 76; EXP, 78; Chevette, 78½; Pontiac 1000, 81, and Alliance, 86.

Compact — LeBaron, 43; Cavalier, 46; Camaro, 46; Skyhawk, 46; Firenza, 53; Dodge 400, 54; Reliant, 56; Mustang, 57; Firebird, 58; Aries, 61; Topaz, 68; Tempo, 67; Cimarron, 69; Eagle, 72; 2000 Sunbird, 73, and Capri, 82.

Intermediate — Malibu, 26; Cutlass Supreme, 28½; Regal, 32; Century, 36; Cutlass Ciera, 38; Chrysler E Type, 38; Pontiac 6000, 45; Skylark, 46; LTD, 48;

Marquis, 48; Celebrity, 50½; Omega, 51; New Yorker E, 51; Grand Prix, 54; Bonneville, 55½; Dodge 300, 57; Monte Carlo, 63; Cougar, 74; Thunderbird, 83; Citation, 83, and Phocnix, 88.

Standard — Olds 88, 23; LeSabre, 29; Grand Marquis, 31; Diplomat, 35; Cordoba, 38; Crown Victoria, 40; Gran Fury, 42½; Chevrolet, 51, and Parisienne, 56.

Luxury — Olds 98, 24½; Lincoln, 26; Electra, 29; Eldorado, 32; Seville, 32; Cadillac, 34; Corvette, 34; Riviera, 36; Toronado, 41; Fifth Avenue, 49; Mark VI/VII, 57, and Continental, 69.

Canadian dealers choose Forbes

WILLOWDALE, Ont.—Ralph A. Forbes was chosen to be president of the Federation of Automobile Dealers Assns. of Canada.

At a convention attended by 1,100 Canadian delegates, Forbes was chosen as the 42nd president of the national association that represents all franchised new-car and truck dealers, both domestic and import.

Forbes, who succeeds Ted Valentine, a Volvo dealer in Calgary, Alta., is the co-founder of Forbes Motors, Inc., Waterloo, Ont.

Week's auto output is 160,444

13 assembly plants work overtime

By Mary Beth Mayer
Staff Writer

With 13 assembly plants working overtime and Chrysler Corp. gradually returning to work after being crippled by a strike, the domestic auto makers scheduled 160,444 units last week.

Production lead the prior week's output of 157,125 by 2.12 percent and was 78.80 percent above the year-ago total of 89,736.

Breakdown for the week by company was: General Motors, 63.31 percent; Ford Motor Co., 23.04 percent; Chrysler Corp., 7.07 percent; American Motors, 3.58 percent; Volkswagen of America, 1.91 percent, and Honda, 1.09 percent.

So far this year, there have been 5,849,228 cars completed, up 29.82 percent from 4,512,732 units finished at this time last year.

Last week, four Chrysler points returned to work, after losing a few days of production

due to a walkout at the auto maker's Twinsburg (O.) stamping plant.

Chrysler's Newark (Del.) and Jefferson (Detroit) plants resumed operations Wednesday (Nov. 9) with their regular two shifts of production.

The St. Louis No. 1 plant operated two 4-hour shifts last Monday and Tuesday and went to its normal two-shift operations Wednesday. The St. Louis No. 2 plant operated one 4-hour shift Monday and resumed its normal one-shift operation Tuesday.

Chrysler's Belvidere (Ill.) facility is slated to return to production today (Nov. 14).

Seven GM points worked last Saturday (Nov. 12). Working two shifts were Detroit, Flint (B-D and G lines), Janesville (Wis.), Lansing (B-D and G lines), Lordstown (O.) and Okla. City. The Baltimore plant worked one Saturday shift.

Five Ford facilities worked extra daily hours last week. They were Chicago, Edison (N. J.), Lorain (O.), St. Louis and Wayne (Mich.). Chicago and Wayne worked last Saturday as well.

Volkswagen's Westmoreland (Pa.) point was on an overtime schedule last week to fill fleet orders.

This week, Ford plans daily overtime at Chicago, Edison, Kansas City, Lorain, St. Louis and Wayne.

Truck production of 58,214 is best since July, 1979

With nine assembly plants working extra hours last week, domestic truck production was targeted at 58,214, making it the best week of truck output in more than four years.

Not since 58,483 units were built in the week ending July 14, 1979, have so many trucks been produced in one week.

Last week's total was slightly ahead of the prior week's 57,818 and more than double the year-ago week's 25,475.

Year-to-date, there have been 2,075,086 trucks assembled, up 22.78 percent from last year's 1,690,124.

General Motors had its Lordstown (O.) and Pontiac plants working two shifts last Saturday (Nov. 12) and its Detroit point working one shift.

All six of Ford's facilities were on daily overtime last week. In addition to those extra hours, Lorain (O.) and Wayne (Mich.) worked Saturday.

This week, all six Ford plants will again be on overtime. Lorain will operate on Saturday (Nov. 19) and the other points will work extra daily hours.

Car, truck output in Canada shows gains for week

Last week's Canadian car production was targeted at 13,963, topping the prior week's output of 12,280 by 13.71 percent. It was more than double the year-ago week's total of 5,715.

The increase in production comes from Chrysler Corp.'s Pillette Rd. plant returning to operation after missing three days the previous week because of a parts shortage caused by a strike at the company's Twinsburg (O.) stamping plant.

Last week, the Pillette Rd. plant was not in operation on Monday (Nov. 7), worked two four-hour shifts Tuesday and resumed its normal two-shift operation on Wednesday.

Year-to-date, there have been 467,404 trucks completed, up 8.23 percent from 431,865 finished at this time last year.

So far, there have been 4,348 T-115 minivans built at Chrysler's Windsor facility, which was not affected by the strike.

U. S. CAR PRODUCTION

	Week Ended Nov. 12, 1983	Week Ended Nov. 13, 1982	Week Ended Nov. 5, 1983	Nov. to date	Jan. 1 to Nov. 13, 1982	Jan. 1 to Nov. 12, 1983
AMERICAN MOTORS.....	5,750	4,425	5,469	10,125	85,883*	169,257
AMC Total.....		817			46,937	4,071
Concord.....						4,068
Eagle.....						3
Renault Total.....	5,750	3,608	5,469	10,125	38,946*	165,186
Alliance.....	3,350	3,608	3,344	6,025	38,946*	138,394
Encore.....	2,400		2,125	4,100		26,792
CHRYSLER CORP.....	11,350	10,087	8,771	18,366	523,406	757,814
Plymouth Total.....	2,700	3,317	2,300	4,540	210,471	264,783
Horizon.....			750	600	68,006	99,294
Reliant.....	2,600	3,270	1,489	3,791	144,289	160,571
Caravelle.....	50	47	36	79	1,176	4,568
Gran Fury.....	50		25	70		350
Chrysler Total.....	4,800	2,437	2,712	8,969	100,734	190,477
LeBaron.....	1,100	1,325	663	1,630	87,791	73,977
Laser.....	900		581	1,365		13,769
Chrysler.....	1,300	1,112	715	1,872	12,943	94,245
Fifth Avenue.....	1,500		753	2,102		8,486
Dodge Total.....	3,850	4,333	3,759	6,857	212,201	302,554
Omni.....			869	695	63,641	108,585
Aries.....	2,400	3,242	1,531	3,625	112,269	121,858
Daytona.....	800		869	1,495		10,920
Dodge 400.....		532			27,644	18,478
Dodge 600.....	600	559	468	974	8,647	42,081
Diplomat.....	50		22	68		632
FORD MOTOR.....	36,964	21,048	40,770	69,581	981,784	1,342,253
Ford Division.....	24,541	11,863	26,722	45,919	601,534	870,849
Escort.....	8,886	1,251	8,877	15,787	235,973	245,985
Fairmont.....		3,730			110,671	23,728
Mustang.....	3,364	1,733	3,342	6,038	110,710	103,932
LTD/Granada.....	4,575	4,988	4,942	8,529	108,657	154,953
Thunderbird.....	3,408		3,584	6,275	29,326	166,742
Crown Victoria/Ford.....	1,423		1,736	2,812		82,331
EXP.....		161			5,997	1,407
Tempo.....	3,085		4,241	6,478		91,771
L-M Division.....	12,423	9,185	14,048	23,662	360,250	471,404
Mercury Total.....	10,268	6,766	11,847	19,746	275,175	381,378
Lynx.....	1,418	448	1,854	2,901	73,185	65,486
Capri.....	629	339	676	1,170	30,114	21,953
Zephyr.....		1,120			35,307	8,601
Marquis/Cougar.....	2,007	1,822	1,811	3,456	49,883	65,622
Cougar/XR7.....	2,990		4,054	6,233	105,310	111,441
Gr. Marquis/Marquis.....	2,133	2,948	2,485	4,121	74,486	82,169
LM7.....		89			1,620	290
Topaz.....	1,091		967	1,865		25,816
Lincoln Total.....	2,155	2,419	2,201	3,916	85,075	90,026
Continental.....	407	483	403	729	17,544	10,383
Lincoln.....	531	1,452	572	989	40,947	54,734
Mark VI/VII.....	1,217	484	1,226	2,198	26,584	24,909
GENERAL MOTORS.....	101,570	50,847	98,023	179,985	2,868,486	3,452,090
Buick Division.....	21,437	11,995	21,993	39,031	669,050	779,519
Skylark.....	3,240		3,658	6,166	125,254	95,221
Skyhawk J.....	2,510	944	2,516	4,523	50,843	64,666
Century.....	3,690	1,897	3,449	6,449	100,006	147,092
Regal.....	4,680	4,138	4,789	8,511	184,061	211,372
Buick.....	6,022	4,031	6,275	11,042	162,011	215,776
Riviera.....	1,295	985	1,306	2,340	37,375	45,392
Cadillac Division.....	7,492	6,991	6,585	12,840	212,678	269,097
Climax.....	601	485	579	1,064	7,624	17,960
Seville.....	740	593	756	1,345	19,743	30,518
Elorado.....	1,415	1,268	1,446	2,572	49,982	64,428
Cadillac.....	4,736	4,645	3,904	7,859	135,329	158,191
Chevrolet Division.....	34,279	11,645	34,743	62,072	913,145	1,146,114
Chevette.....	4,567		4,723	8,345	189,987	180,747
Cavalier.....	8,534	1,723	8,545	15,370	81,777	266,331
Celebrity.....	6,076	1,176	5,490	10,468	59,697	148,066
Camaro.....	5,062	2,216	5,034	9,089	196,011	170,193
Citation.....	1,935	1,117	1,870	3,431	145,132	76,473
Malibu/El Camino.....	605	2,882	415	937	110,095	98,342
Monte Carlo.....	3,977	2,025	4,829	7,840	70,112	103,493
Chevrolet.....	2,748	506	3,148	5,266	37,820	80,605
Corvette.....	775		689	1,326	22,514	23,844
Oldsmobile Division.....	25,718	17,192	23,004	44,121	695,963	888,066
Omega.....	1,820		1,496	3,017	68,793	48,800
Firenza.....	1,830	997	1,849	3,309	40,905	41,570
Cutlass.....	8,084	5,328	6,295	13,120	187,139	264,668
Cutlass/Ciera.....	4,754	3,462	5,713	9,324	109,989	168,074
Oldsmobile.....	8,260	6,513	6,876	13,601	248,953	310,235
Toronado.....	970	892	975	1,750	30,184	36,719
Pontiac Division.....	12,844	3,024	11,598	21,921	387,652	369,294
Academy.....			133	106	9,489	13,028
2000.....	3,790		2,733	5,976	34,516	97,167
1000.....	808		658	1,334	32,760	36,873
Firebird.....	2,858	995	2,716	5,031	117,171	87,290
Phoenix.....	506		478	888	42,327	22,275
G. Prb/Bonneville.....	1,862	2,029	1,925	3,402	121,047	83,912
Parisienne.....	720		835	1,388	10,295	10,295
Fiero.....	2,100		2,120	3,796		18,454
6000.....					30,342	
HONDA.....	1,750	75*	1,881	3,095	100*	43,632
VOLKSWAGEN.....	3,060	3,254	2,411	4,989	70,908	84,182
CHECKER.....					2,163*	
Total Cars, U. S.....	160,444	89,736	157,125	286,141	4,512,732	5,849,228

CANADIAN CAR PRODUCTION

	Week Ended Nov. 12, 1983	Week Ended Nov. 13, 1982	Week Ended Nov. 5, 1983	Nov. to date	Jan. 1 to Nov. 13, 1982	Jan. 1 to Nov. 12, 1983
AMERICAN MOTORS.....	720	1,218	687	1,270	28,234	25,178
CHRYSLER CORP.....					144,488	104,365
FORD MOTOR.....	8,420	874	8,489	15,211	250,164	233,837
GENERAL MOTORS.....	13,511	4,076	11,064	22,362	310,854	460,821
VOLVO.....	225	225	225	405	8,962	9,177
Total Cars, Canada.....	22,876	6,393	20,465	39,248	742,702	833,378
N. American Cars.....	183,320	96,129	177,590	325,389	5,255,434	6,682,606
N. American Trucks.....	72,177	31,190	70,098	128,283	2,121,989	2,542,490
North American Cars and Trucks.....	255,497	127,319	247,688	453,672	7,377,423	9,225,096

*—Estimated.
†—All Acadia and Caravelle are built for sale in Canada.

TRUCK PRODUCTION IN U. S.†

	Week Ended Nov. 12, 1983	Week Ended Nov. 13, 1982	Week Ended Nov. 5, 1983	Nov. to date	Jan. 1 to Nov. 13, 1982	Jan. 1 to Nov. 12, 1983
CHEVROLET.....	19,026	6,706	19,330	34,490	587,536	723,484
DODGE.....	3,800	2,126	4,005	7,004	111,521	124,826
FORD.....	21,887	10,413	20,867	38,581	610,891	805,500
GMC.....	6,241	2,101	6,434	11,388	203,494	228,524
INTERNATIONAL.....	1,210	1,024	1,175	2,178	40,910	44,513
VOLKSWAGEN.....					8,103	2,079
JEEP.....	3,600	2,055	3,543	6,434	76,539*	69,104
NISSAN.....	1,400		1,414	2,531		11,276
AM GENERAL.....	50*	50*	50*	90*	2,130*	2,180*
MISCELLANEOUS.....	1,000*	100*	1,000*	1,800*	49,000*	43,600*
Total Trucks, U. S.....	58,214	25,475	57,818	104,496	1,690,124	2,075,086

CANADIAN TRUCK PRODUCTION

	Week Ended Nov. 12, 1983	Week Ended Nov. 13, 1982	Week Ended Nov. 5, 1983	Nov. to date	Jan. 1 to Nov. 13, 1982	Jan. 1 to Nov. 12, 1983
CHRYSLER CORP.....	3,247		1,798	4,886	92,404	112,286
FORD MOTOR.....	4,190	3,105	4,166	7,433	118,535	123,324
GENERAL MOTORS.....	6,461	2,349	6,183	11,427	211,196	226,909
INTERNATIONAL.....	135	261	133	241	9,730	4,905
Total Trucks, Canada.....	13,963	5,715	12,280	23,787	431,865	467,404
N. American Trucks.....	72,177	31,190	70,098	128,283	2,121,989	2,542,490

†—Now includes window van production. *—Estimated.
Jep includes commercial only. AM General includes government-destined vehicles.

Publicity called major effect of GM-FTC transmission pact

By Helen Kahn
Washington Bureau Chief

WASHINGTON. — The most important effect of the great hullabaloo raised over the proposed Federal Trade Commission settlement with General Motors over 21 million cars with potential transmission, diesel injector and camshaft problems is the guaranteed widespread publicity.

This will alert consumers who might have given up the battle or those whose cars have yet to develop problems, that they can still make their case.

In fact, if problems with GM engines and transmissions develop by 1991, they can still use the GM-Better Business Bureau arbitration.

Involved at minimum, under the 1980 FTC complaint now settled are:

1. The turbo-hydra-matic 200 automatic transmission, used in 5 million to 6 million cars made during model years 1976 through April 26 of this year but only in rear-drive cars and light trucks.

2. Camshafts or lifters in nearly 15 million 305-CID and 350-CID gasoline engines made from 1974 through April 26, 1983, in engines made by Chevrolet.

3. Fuel injector pumps or fuel injectors in some 500,000 350-CID diesel engines produced from 1978 through April 26, 1983, in engines made by Oldsmobile.

April 26 is the date of the tentative settlement made between GM and the FTC.

To no one's great surprise, the commission's vote was 3 to 1 with Commissioner Michael Pertschuk the lone dissenter, and he urged consumers to take full advantage of the mandated arbitration which he still feels is inferior to direct payments.

• FTC not only held a press conference in Washington, it also held them in regional offices to assure full press coverage. It produced full packets of materials and so did GM.

The settlement has its good points as well as its deficiencies. It will cost GM, according to estimates made by Commissioner George W. Douglas, at least \$95 million, but it will probably mean higher prices for new cars in the future.

Moreover, the settlement allows the BBBs nationwide to mediate/arbitrate all engine and transmission problems for the next eight years as well as cases

that go back to 1974 models and includes problems beyond the specific components here involved.

This makes it superior to an earlier settlement with Ford over "piston scuffing," etc., because that agreement boxed in consumers to three years/36,000 miles.

FTC also estimates that between 250,000 and 500,000 consumers may use the new BBB setup. Although this is far fewer than the 21 million vehicles potentially affected, it has meant that the GM program is now nationwide.

Since September, the arbitration decisions are non-binding for the consumer. In fact, the only consumers who cannot try again are those who went to BBB arbitration and lost between April and September and those who litigated and lost.

All others, including those that have had problems with GM diesel engines other than injectors and injector pumps, can also use the new system. Those who have problems not directly covered by the FTC-GM consent settlement must still own the vehicle.

The good side here is that if they have proof of repair bills on the components covered—transmission, camshafts, injector pumps, etc.—or if they can convince the arbitrator of the genuineness of their grievance, consumers can still try for reimbursement under the system.

Moreover, the work does not have to have been done at GM dealerships. These are points of considerable importance, espe-

cially since many consumers have been under the impression that no help would be forthcoming once the 5/50 warranty on the drivetrain expired.

• While Pertschuk and others would clearly prefer automatic redress instead of taking a chance with case-by-case arbitration, it is also true that GM is a litigator par excellence.

Commissioner Douglas said that getting GM to agree to direct redress might take until 1990 at least, with some cars then being almost 20 years old. That makes nonbinding arbitration look somewhat better.

Douglas also noted that redress would cover only specific components and problems in-

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Corvette milestone

The 750,000th Corvette has been finished at General Motors' plant in Bowling Green, Ky. Doing the driving honors was Wayne Vollmar, right, the only employee who has worked on the car since its introduction in 1953. Also pictured is Joe Dell'Ario, who oversees production of the Corvette.

Nov. 1-10 is 17th straight period to gain in deliveries

U.S. new-car sales top '82 total

By Jenny L. King
Staff Writer

Early-November domestic new-car sales pushed the year-to-date total ahead of the sum for the entire 12 months of 1982 and marked the 17th consecutive period with a sales increase over year-ago numbers.

Through Nov. 10, dealers had delivered 5,843,480 new domestic cars, up 18.32 percent from 4,938,907 for the same portion of 1982 and ahead of the 1982 calendar year total of 5,756,660. Two years ago, sales through Nov. 10 were 5,559,127, putting the current year ahead of that as well.

Sales of 198,126 for the first November period this year were up 5.14 percent over the 188,441 written in the books in 1982. Although General Motors and Volkswagen failed to match their year-ago totals, their competitors' gains were enough to push the 10-day total ahead.

GM was off 3.44 percent, to 120,278 from 124,566. A year ago the corporation was involved in a low-interest financing program on carryover models which pumped up sales artificially for a two-month time span.

Ford Motor Co. reported sales of 47,982 new passenger cars, up 18.43 percent from 40,515. Chrysler Corp.'s 26.64-percent sales gain was the biggest of any domestic maker for the period. Chrysler sales climbed to 21,263 from 16,791.

American Motors reported estimated sales of 4,900, up 8.89 percent from 4,500. Volkswagen was down 19.43 percent, to 1,667 from 2,069, and Honda again surpassed VW, this time

with sales of 2,036 new Accords.

GM earned 60.71 percent of the early November market, down from 66.10 percent in 1982. Ford has 24.22 percent, up from 21.50 percent. Chrysler rose to 10.73 percent from 8.91 percent. AMC went to 2.47 percent from 2.39 percent. VW slipped to 0.84 percent from 1.10 percent and Honda earned 1.03 percent of the recent period sales.

Domestic makes had a mixed bag of sales results. Plymouth was down 0.42 percent; Lincoln was down 20.61 percent; Buick was down 9.40 percent; AMC was down 35.71 percent, and VW was down 19.43 percent. Im-

perial sales no longer are reported by Chrysler Corp.

Makes coming up on the plus side included: Chrysler, up 60.09 percent; Dodge, up 29.85 percent; Ford, up 17.00 percent; Mercury, up 38.07 percent; Cadillac, up 18.15 percent to a record 11,165 from 9,450; Oldsmobile, up 2.50 percent; Pontiac, up 13.13 percent and Renault, up 29.03 percent.

The daily selling rate of 22,014 was up 5.14 percent from 20,938 last year. There were nine selling days both this year and last.

Annualized sales based on the Nov. 1-10 results were 7.49 million.

Chevy seeks to avert 'gas guzzler' Corvette

By Roger Rowand
Engineering Editor

TROY, Mich. — Chevrolet Division is moving at wide-open throttle in its efforts to keep Corvette from wearing a gas-guzzler window sticker in the 1985 model year.

The techniques being used cover the waterfront. They range from even slipperier styling to reduced friction inside the engine.

"I don't want to minimize the fact we feel very strongly that we want to keep the car out of the gas guzzlers. In order to do that we will be looking at extraordinary means," said John Harlow Jr., staff engineer, Chevrolet Engineering.

His remarks came during a panel discussion at a seminar sponsored by the Aluminum Assn.'s Automotive and Truck Committee.

Among techniques being examined are an aluminum block or head and a smaller, more-fuel-efficient engine, Harlow indicated.

He ticked off a list of possible routes to further fuel economy. The list included additional materials substitution and aerodynamics with breakthroughs coming as General Motors develops technology in its relatively new wind tunnel in Warren, Mich.

Corvette's drag coefficient now is .341. Corvette for '84 gets 20.0 MPG. The guzzler tax starts at 19.5 MPG this year, goes to 21.0 in 1985 and then to 22.0 MPG in 1986.

James C. Davis, a design engineer with Chevy, said if it hadn't been for the push for fuel economy, the Corvette would not have been completely redesigned for 1984 as it was.

Harlow said consumer pressure for fuel economy has not been seen in the performance-car market as it has in other car fields where he expects that pressure to return.

"We've had what we consider a very positive experience with the aluminum used in the Corvette," he said. "There's been some fall-out in areas that were unexpected. For example, the parts look good. They have long-term durability. They look good after many miles and many years."

"People keep Corvette much longer than the average car is kept. You want the body to last, and you want the chassis to last, too," he said.

Harlow emphasized that things done in the name of fuel economy are not necessarily detrimental to a car's sporty, fast image. Their costs, however, may have a negative effect, he said.

DOMESTIC SALES		
	Nov. 1-10, 1983	Nov. 1-10, 1982
Renault	4,000†	3,100†
AMC	900†	1,400†
AMERICAN		
MOTORS	4,900†	4,500†
Chrysler	7,129	4,453
Imperial	59	59
Plymouth	5,956	5,981
Dodge	6,178	6,296
CHRYSLER		
CORP.	21,263	16,791
Ford	32,429	27,718
Mercury	12,691	9,192
Lincoln	2,862	3,605
FORD MOTOR	47,982	40,515
Buick	21,432	23,655
Cadillac	11,165	9,450
Chevrolet	40,035	46,635
Oldsmobile	29,558	28,837
Pontiac	18,088	15,989
GENERAL		
MOTORS	120,278	124,566
VOLKSWAGEN	1,667	2,069
HONDA	2,036	1,667
U.S. INDUSTRY	198,126	188,441
TOTAL	198,126	188,441

† Estimate



Stretching the '84 Lincoln

American Custom Coachworks, Ltd., Beverly Hills, Calif., will build 600 '84 Lincoln St. Tropez extended-body limousines. The suggested list price is about \$46,500.

MacKenzie sees 10-15 pct. gain in '84 car market

CHICAGO. — New-car sales in 1984 should rise 10 to 15 percent over this year and total about 10.5 million cars, according to Gordon MacKenzie, general manager of Lincoln-Mercury.

Trucks will do even better, with a gain of 15 to 18 percent, he said.

For 1984, MacKenzie predicted that Ford Motor Co. would capture 18 percent of the car market and 31 percent of the truck market.

MacKenzie spoke at a press conference here.